





## Stock Assessment Updates of the Bottomfish Management Unit Species of American Samoa, the Commonwealth of the Northern Mariana Islands, and Guam in 2015 Using Data through 2013:

## **Tier 3 WPSAR Terms of Reference**

The goals of this peer review are to:

- 1. Suggest any minor revisions that may improve the draft 2015 Territorial Bottomfish Stock Assessment before the National Marine Fisheries Service finalizes the assessments; and
- 2. Make recommendations regarding future research, data collection, and changes in methods that may improve future iterations of territorial bottomfish assessments.

To accomplish the stated goals, the Panel Chair will provide a consensus report and each reviewer will also provide an individual report addressing each of the terms of reference listed below. Reports should be provided to the Coordinating Committee at the close of the review. Any minority opinions will be recorded in the reports. WPSAR reports will be made public on the WPSAR website shortly after the review is closed. The reports must address the following Terms of Reference:

- 1. Review the soundness and reliability of the results and conclusions, including estimated population benchmarks and management parameters (e.g. MSY, Fmsy, Bmsy, MSST, and MFMT).
- 2. Review that the data and procedures used to produce the assessments are documented in sufficient detail so as to be reproducible.
- 3. Review that all scientific uncertainties and sources of statistical error are clearly identified and characterized.
- 4. Review that data source limitations, model assumptions, and gaps in scientific information are identified. Review that any decisions to exclude data from analysis are explained.
- 5. For consideration in future benchmark assessments, make recommendations regarding future research, data collection, and changes in methods that may improve future iterations of territorial bottomfish assessments.
- 6. Summarize the strengths and limitations of the overall product.
- 7. If the assessment under review is found to be lacking in scientific robustness, identify an assessment previously used for the management of this stock that you consider to be more scientifically robust and explain why.